

which is scarcely shorter, or even to leave out the (sp.). The reader is thus to note that Linnæus originally gave the specific name *thalictroides*, but not the generic. Who did, must be otherwise ascertained. A pretty long experience convinces us that much confusion is risked or trouble expended, and nothing worth while secured by these endeavours to put forward the original rather than the actual application of a specific name. Ante-Linnæan nomenclature broke down in the attempt to combine specific appellation with description. Here the attempt is to connect it with the history of its origin, which, after all, can be rightly told only in the synonymy. The natural remedy for the supposed evil which this mode of citation was to cure is to consider (as is simply the fact) that the appended authority does not indicate the origin, but only the application at the time being, of the particular name; and so no one is thus robbed of his due. The instructed naturalist very well knows the bibliography of species, or where to look for it; the tyro can learn.

“§ C. *Specific names should always be written with a small initial letter, even when derived from persons or places*”—on the ground that proper names written with a capital letter are liable to be mistaken for generic. (But no naturalist would be apt to write the name of a species without that of the genus, or its initial, preceding.) Also, “that all species are *equal*, and should therefore be written all *alike*.” The question is one of convenience, taste, and usage. As to the first, we do not think a strong case is made out. If mere uniformity be the leading consideration, it might be well to follow the example of the American author who corrected *Ranunculus Flammula*, Linn., and *R. Cymbalaria*, Pursh, into *R. flammulus* and *R. cymbalarius*! As to taste and usage, we suppose there would be a vast preponderance against the innovation, so far as respects personal names and those substantive names which Linnæus delighted to gather from the old herbalists, &c., and turn to specific use, e. g., *Ranunculus Flammula*, *R. Lingua*, *R. Thora*, *R. Ficaria*, and the like. Adjective names of places and countries Linnæus printed with a small initial, e. g., *R. lapponicus*, &c. DeCandolle writes such names with a capital letter; and this best accords with English analogy, but has not been universally adopted, and probably will not be.

“§ F. *It is recommended that, in subdividing an old genus in future, the names given to the subdivisions should agree in gender with that of the original group*.” The practical objection to this is, that old names should be revived for these genera or subgenera, if there be any applicable ones, which is likely to be the case in botany.—*Silliman's American Journal*, March 1864, p. 278.

On the Roman Imperial and Crested Eagles. By JOHN HOGG, Esq., M.A., F.R.S., F.L.S., &c.*

I purpose in the present paper to make a few brief remarks on the *Crested* or *Crowned* Eagles, and the usual *Roman* Eagle.

This last bird, which is generally termed the *Imperial* Eagle, is

* This paper was read to the *Section D* of the British Association at Newcastle-on-Tyne, on August 28, 1863.

represented with its head *plain*, that is to say, *not* crested; it is in appearance the same as the attendant bird of the "King of Gods and Men," and is generally represented as standing at the foot of his throne, or sometimes as the bearer of his thunder and lightning. Indeed he also often appears perched on the top of his sceptre. He is always considered as the attribute or emblem of "Father Jove."

So likewise the same noble bird is the attendant on Jupiter's cup-bearer, Ganymedes; for, according to the well-known fable, that great god sent his eagle to carry off the youth Ganymedes in his claws from earth to the celestial regions.

A good copy of this bird of Jupiter, called by Virgil and Ovid "Jovis armiger," from an antique group, representing the *Eagle* and *Ganymedes*, may be seen in Bell's 'Pantheon,' vol. i. Also "a small bronze eagle, the ensign of a Roman legion," is given in Duppa's 'Travels' (in Sicily, &c., 2nd edition, 1829), tab. 4. That traveller states that the original bronze figure is preserved in the museum of the "Convent of St. Nicholas (d'Arena) at Catania." This convent is now called "Convento di S. Benedetto," according to Mr. G. Dennis, in his 'Handbook of Sicily,' published by Murray: at p. 399, he thus mentions this ensign as "a Roman *Legionary Eagle* in excellent preservation." From the second century before Christ, the *Eagle* is said to have become the *sole* military ensign; and it was mostly *small* in size, because Florus (lib. iv. cap. 12) relates that an ensign-bearer, in the wars of Julius Cæsar, in order to prevent the enemy from taking it, pulled off the eagle from the top of the gilt pole, and hid it, by placing it under cover of his belt:—"tertian (*aquilam*) signifer prius, quam in manus hostium veniret, evulsit; mersamque intra baltei sui latebras gerens, in cruenta palude sic latuit."

In later times, the *eagle* was borne with the *legion*, which, indeed, occasionally took its name, "Aquila."

This Eagle, which was also adopted by the Roman emperors for their imperial symbol, is considered to be the *Aquila heliaca* of Savigny, which greatly resembles our Golden Eagle (*A. chrysaëtos*) in plumage, though of a darker brown. It inhabits North Africa and Palestine, and is but rarely found in Europe. A living specimen may now be seen in the Zoological Gardens, in Regent's Park.

Next as regards the *Crested Eagles*.

Being lately engaged on a memoir on Baalbec, the ancient Heliopolis, or "Sun City" of Syria, I was desirous, if possible, of ascertaining whether the Crested Eagle, which is well sculptured on the soffit of a door in the Temple of Apollo or the Sun, could be accounted a *real* species, or only an *imaginary* one carved after a fancied design of the sculptor. The bird is engraven in Pococke's 'Description of the East' (vol. ii. plate 16), and is described as $2\frac{1}{4}$ feet in height, and 11 feet in extent from the tips of the outspread wings. The same sculptured bird is also given, on a somewhat larger scale in plate 34 of Wood's 'Baalbec.' Moreover, on the soffit of the door of the cella of the Temple of the Sun,

at Palmyra, in Syria, a *like Eagle* is sculptured. (See fig. H. in plate 18 of Wood's 'Palmyra'.)

In my work on Baalbec, I have stated, "in both" the sculptures at Baalbec and Palmyra "the Eagles differ from that represented as the attendant bird of Jupiter, by bearing a *crest*, which may possibly allude to the radiated orb or *rays* of the sun." (Trans. Roy. Soc. of Literature, vol. vii. p. 300.)

I will now point out four or five Eagles having a *crest* or crown, and from one or two of which the sculptured birds at Baalbec and Palmyra may have been designed by the Roman artists.

Upon the whole, the species which seems to agree well with the sculptures is the *Aquila Desmursii*. This fine bird is well drawn and beautifully coloured in tab. 77 of vol. iv. 'Trans. Zool. Society'; but in Hartlaub's work on the Ornithology of West Africa, it is incorrectly written *Desmuri* (of Jules Verreaux). It occurs at Bissao, in Western Africa, and is called by the natives *Socolas*; it is also met with in Abyssinia and Nubia, and along the banks of the White River (Bahr el Abiad). Dr. Hartlaub, however, makes no mention of its *crest*. It is much like both *A. pennata* and *A. naevia*. It is subject to many changes in its plumage at various ages, although its usual plumage presents a rich chocolate-colour; its tail and the extremities of its wings are black. A well-marked "distinction," Mr. Gurney says, "in *Aquila Desmursii* is a well-defined though small *occipital crest*, consisting of from eight to nine pointed feathers, the longest of which are fully an inch and a half in length" (p. 365, vol. iv. Trans. Zool. Society).

This bird especially resembles Wood's representation of the Eagle at Palmyra, both in the size and form of the *crest*; but it differs from it in having the *tarsi hairy* to the toes. Being an inhabitant of parts of Africa, in particular of the west coast, we may reasonably conclude that the Romans might have been acquainted with it.

Another noble *Crested Eagle* is given in the woodcut published in the 'Field' newspaper, on May 23, 1863. It has recently been brought to this country; and I visited the living specimen in June, last year, at the Zoological Gardens in the Regent's Park, where it had then been about four months; I have also seen the stuffed specimen in the British Museum. It was named *Harpyhaliaëtus coronatus* by Temminck, and appeared to be shy. The general colour of its plumage is a lead-coloured grey, and its fine *long crest*, of a dark grey, becomes nearly black at the end. In this character it agrees with the two sculptured Eagles, and likewise in its legs or *tarsi* being *bare* to the toes. In both of these characters it might answer to the sculptured figures at Baalbec and Palmyra; but being a native of the New World, in Brazil and Paraguay, we cannot suppose that it could have formed the model for the sculptors or architects of these superb temples, which were erected during the Roman Empire:

I further noticed a more powerful Eagle among the stuffed birds in the British Museum, which bore a *larger* and more developed *crest*; but, as it inhabits "South America and British Guiana," it cannot, for the reason which I have just stated, be referred to

the sculptured Eagles. It is called *Thrasaëtus harpyia*, or "Crested Eagle."

Either one of the two following species, also preserved in the collection of the British Museum, is not unlikely to have presented the type of a *Crested Eagle* to those sculptors, namely, *first*, *Spizaëtus cirrhatus*, or the "Crested Indian Eagle," with its legs feathered to the toes; inhabiting Nepal and India, it might have been known to the Romans.

And the *second* species, *Spizaëtus coronatus*, is a truly fine bird, bearing a large and long *crest*: it is found in Southern Africa. Although this, like the preceding species, has its *tarsi feathered*, still this character, being very difficult for the sculptor to represent in stone, may have been purposely omitted.

I may then add, in concluding, that either this last-named "Crowned Eagle" (*S. coronatus*) or the *A. Desmursii* may have been the representative of the Palmyra and Baalbec Eagles; for I can by no means think that the sculptors executed those admirably finished *Crested Eagles* in the splendid Temples of the Sun in both of those cities, from their own imagination, and without the aid of an existing *natural species* to direct them in their measurements of the stone figures, and more especially since that sun-bird was the *sacred symbol* of the Great Deity in those cities, where the chief worship of *Baal*, or *Apollo*, or the *Sun* had for so many ages prevailed, and even become renowned throughout the Roman world.

Climbing Habits of the Anabas scandens.

To the Editors of the Annals of Natural History.

GENTLEMEN,—The February Number of the 'Annals of Natural History' contained an article on the climbing habits of the *Anabas scandens*, written by Capt. Mitchell, of the Madras Government Central Museum; and the following extract from a private letter just received from him may be of interest to your readers as tending to confirm the views stated in the paper referred to.

Captain Mitchell says in his letter:—

"Rungasawmy brought to the library, two days ago, three live specimens of the *Anabas scandens*, to show me how it progressed. It was really most amusing to see these creatures scudding along the rattan mat. The great motive agent was evidently the operculum, which they opened and shut with great rapidity, moving first on one side and then on the other. The pectoral fin appeared also to be used; but I could not see that the tail was of much assistance. So long as the direction of movement was across the rattans, progress seemed tolerably easy; but one fellow got on the line of the rattans, and seemed much bothered until he changed his direction by a 'right shoulders forward.' I have the three fish in my aquarium, where they seem quite at home. They do not appear to breathe like other fish: I have watched one for some minutes without perceiving any motion of the lips or operculum."

Your very obedient Servant,

London, May 13, 1864.

A. C. BRISBANE NEILL.